PROCEEDINGS

OF THE

BIOLOGICAL SOCIETY OF WASHINGTON

THE NAME OF THE ROCKY MOUNTAIN SHEEP.

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For nearly twenty years there has been an unfortunate lack of uniform usage respecting the name of the Rocky Mountain Sheep. Owing to the size and importance of the animal, it is referred to in many works of sport and travel, and since it has been divided into numerous geographical races, its name is of frequent occurrence in various classes of zoölogical publications. Therefore agreement as to its scientific name is more than usually desirable. The names used for it in recent years are *Ovis canadensis* and *Ovis cervina*, which, as now seems proved, are of even date and subject to fairly definite rules; but the habit of disagreement has become so fixed that it continues to afflict, possibly because the claims of *canadensis* for recognition have not been stated at such length as those of *cervina*. A third name, *Ovis montana*, although not used recently, now proves to be of the same date as the others, so this also is involved.^{*}

As usual in such cases, the facts became known gradually and decisions made at different periods have had some effect upon opinions rendered in the face of later developments. All three names refer exclusively to one animal, the *Belier de Montagne* of Geoffroy, which was in turn based on the Mountain Ram of MacGillivray. Cuvier and most subsequent authors until 1880 used *Ovis montana*, citing it from 1817. In 1880 Alston[†] found that *O. montana* Cuvier 1817 was preoccupied by *O. montana* Ord 1815, based on the mountain goat, a different animal; therefore he abandoned it for the mountain sheep and adopted *O. cervina*, which he cited from Desmarest 1818. Five years

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^{*} See Hollister, Proc. Biol. Soc. Wash., XXV, pp. 185-188, Dec. 24, 1912.

[†] Biolog, Cent. Amer., p. 111, 1880.

¹²⁻PROC. BIOL. SOC. WASH., VOL. XXVI, 1913.

later. Biddulph* adopted canadensis, citing it from Shaw 1804 and claiming priority for it over cervina which he believed to date from 1818. He obtained the date 1804 not from the title page but from an estimate based upon assumed regularity of issue of the parts of the Naturalists' Miscellany, the work in which the name appeared. He was thus the first modern author to use any of the three names upon the basis of its real date as we now know it. The burden of proof, therefore, rested upon names subsequently brought forward. Apparently in this belief, Merriam in 1890[†] and 1891, † adopted canadensis. In April, 1895, Sherborn & published a careful collation of the parts of the Naturalists' Miscellany in which he more than corroborated the date obtained by Biddulph for canadensis since he made it appear that in all probability it was published in December, 1803. In spite of this, Allen in June of the same year rejected *canadeusis* in favor of cerving which he cited from its original source bearing the date 1804 on its title-page. He based this action upon his personal doubt of the date December, 1803. He readily admitted that the name must in any case have appeared early in 1804, thus making it of even date with certina, but he chose cervina in preference to canadensis because he regarded a titlepage date more reliable than one ascertained from other sources. Dr. Allen's views were followed in some quarters but in others his mere expression of doubt was not accepted as evidence. Those who continued to use *canadensis* did so on the ground that to the best of their knowledge it was published in December, 1803, and therefore antedated O. cervina, which lacked even a pretension to publication prior to 1804. A title-page date had no sanctity to them for they knew it might be called in question as well as one determined by investigation. That is, Sherborn's determination of 1803 as the date of O. canadensis stood accepted in the absence of proof to the contrary and in the last analysis no more could be said of the later title-page date of O. cervina. It was evident, moreover, that a subsequently discovered error in the collation of Shaw's work could

^{*} Proc. Zool. Soc. Lond., pp. 681-684, 1885.

[†] N. Amer, Fauna No. 3, p. 78, Sept. 11, 1890.

[†]N. Amer. Fauna, No. 5, p. 81, July, 1891.

[§] Ann. & Mag. Nat. Hist. (6), xv, p. 376, 1895.

^{||} Bull, Am, Mus, Nat, Hist., VII, p. 258, footnole, June 29, 1895.

only throw the date of *canadensis* forward to 1804, which would make it at least of even date with *cerving*.

The existence of such an error is now shown by an exhaustive reexamination of all the literature set forth by Dr. J. A. Allen in a paper* the main point of which is the discovery that one of the volumes of the Naturalists' Miscellany closed in July instead of August, therefore indicating that the part containing the name Oris canadensis did not appear until January or February, 1804, instead of December, 1803, as previously supposed. Although Dr. Allen has not so regarded it, the importance of this discovery seems to lie in the fact that the matter was changed from one of priority to one of the treatment of names of even date. The question of dates is now thoroughly sifted and it seems extremely unlikely that it will ever be possible to go behind Dr. Allen's evidence, which is to the effect that both names appeared early in 1804, and that beyond this nothing can or ever will be known. His words (loc. cit., p. 2) are:

"The present paper originated in an attempt to settle the question of priority between the names *Oris cervina* Desmarest and *Oris canadensis* Shaw, both of which prove to have been published early in the year 1804."

Again (p. 11):

"The careful collation of Shaw and Nodder's work given below shows that the actual date of publication of this name [*canadensis*] was almost unquestionably February, 1804, and could not have been in 1803."

His conclusion, however, is the same as his former one and he continues to urge the adoption of the name *cervina* because of its title-page date. Although little more than a year has passed, usage has again failed to conform to his interpretation and we still have some authors using *cervina* and others *canadensis*. Thus, Grinnell[†] has employed *cervina*, while Bailey[‡] and Miller[§] show their preference for *canadensis*. The case for *canadensis* seems sufficiently covered by the fact of its current use at the time *cervina* was first cited from 1804 by a modern author. This being the case, the attempt to displace it violated

^{*} Bull, Am. Mus. Nat. Hist., xxxi, pp. 1-29, Mar. 4, 1912.

[†] Univ. Calif. Pubs., Zool., X, pp. 143-153, May 9, 1912.

[‡] Proc. Biol. Soc. Wash., xxv, pp. 109–110, June 29, 1912.

[§] U. S. Nat. Mus., Bull, 79, p. 395, Dec. 31, 1912.

the general principle that a name should not be changed except upon absolutely convincing evidence. However, even if we disregard this and attempt to settle the case by reference to a specific code rule we are again forced to choose *canadensis*. Article 28 of the International Code of Zoölogical Nomenclature is the only one bearing upon it. This reads as follows:

"Art 28. A genus formed by the union of two or more genera or subgenera takes the oldest valid generic or subgeneric name of its components. If the names are of the same date, that selected by the first reviser shall stand. The same rule obtains when two or more species or subspecies are united to form a single species or subspecies.

"*Recommendation.*—In absence of any previous revision, the establishment of precedence by the following method is recommended:

((a) A generic name * * *

(b) A specific name accompanied by both description and figure stands in preference to one accompanied only by a diagnosis or only by a figure.

"(c) Other things." * * *

It is evident that the first reviser principle can not apply to cases of this kind, for all the early authors were unaware of the facts and never had in mind the idea of revision in the sense of selection, being wholly concerned with priority. Thus in 1880 Alston (I. c.) adopted cervina over montana, but on the erroneous suppositions that one dated from 1818 and that the other was preoccupied. Again, Biddulf (1, c,) in 1885 gave preference to *canadensis* after finding its date to be 1804, but he too had no date for *cervina* earlier than 1818. Even Allen's paper of 1912 can not be called full revision, because he considered only the names cerving and canadensis, believing montana to date from 1816 and therefore to be negligible. Upon the basis of mere adoption, it would be necessary to select montana, its use by Tiedemann in 1808 being the first subsequent to 1804. It is obvious, however, that a reviser can not qualify as such in a matter of names of even date unless he is aware that the dates really are even. Moreover, it is well understood that the main provisions of Article 28 are aimed at a class of cases very different from the present one; but Recommendation (b) of this article is clear and definite and evidently intended for cases of any kind not previously covered. This brings us definitely to the selection of Ovis canadensis, for this

name appears with both text and figure, whereas, *montana* has only a figure and *cervina* only a diagnosis.

The facts of first importance regarding the three names may be summarized as follows:

(1) Ovis canadensis was first published, with description and figure, early in 1804. An exact date is not ascertainable. This information was obtained by collation of parts of the work in which it appeared and reference to contemporaneous literature by bibliographers of the highest rank. There is no more reason to doubt this date than that of any other work without title-page imprint, and unless all such are to be rejected, it must be accepted. This name was the first to be used by modern authors upon the basis of its real date and therefore should stand, unless it can be proved that some other name has priority over it. This has not been done. Moreover, by Recommendation (b), Article 28, International Code of Zoölogical Nomenclature, the selection of this name is imperative.

(2) Oris cerrina was first published, with description only, in the year 1804, as indicated by a title-page imprint. An exact date is not ascertainable. Attempts to substitute this name for *canadensis* never have shown its prior publication.

(3) Ovis montana was first published, with figure only, in the year 1804. An exact date is not ascertainable. This information was obtained by bibliographic investigation, since the plate was not dated. Its use is open to the same objections as that of *cercina*.